

“Westheimer Tower, radio check?”

By Harrison Scott

“Westheimer Tower, Crimson 6 reporting midfield for a touch and go”....“Westheimer Tower, Crimson 6 reporting abeam the numbers for touch and go”....“Westheimer Tower, radio check?”

AVIATE, NAVIGATE, AND COMMUNICATE. When radio failure occurs in flight it is important to remember that the airplane is still flying and this is not a time to panic. This situation presented a realistic problem that turned out to be a great learning experience for both student and instructor. I asked my student what he thinks we should do when we have radio silence or even suspect radio failure. He correctly answered that we first needed to double-check the radios and headset connections because maybe it was pilot error. We individually checked our headset input jacks and both sides were plugged in correctly. Next, we made sure that we did not accidentally switch frequencies or transmit on the wrong COMM. At the same time the volume controls were double and triple checked to make sure they were turned up. About this time we were turning right base after establishing that the area was clear. An aircraft holding short of runway 17 was ready for departure, and we were able to hear their takeoff radio call to tower. No response from ATC, so we immediately made the assumption that there was some type of failure with the tower’s radios. After determining that our radios were not the problem the student noted correctly that we should try and observe light gun signals from the tower...

A brief review of light gun signals and their meanings: A steady green light in the air is your clearance to land at the airport. A flashing green light means return for landing and then at the appropriate time you will see a steady green light. Think of if you saw your three green gear indicator lights flashing on final approach, I would hope that you would go around and not continue to land until you corrected the problem and saw the three steady green gear down lights. Likewise, a flashing green light means return for landing followed by a steady green light. Red flashing lights indicate some sort of danger on the field. Think about cell phone towers with pulsating red lights on top of them. The airfield might have deer, pesky coyotes, or a stalled airplane on the runway and you should not land. A steady red light means to stop what you are doing and continue to circle. Associate this with a red stoplight that you see daily on the road. Alternating red and green means that you should exercise extreme caution. There might be another aircraft with inoperative radios or another potential dangerous situation.

...We continued the approach with our eyes scanning the tower for any signals that might be directed our way. There was one problem, it was early in the morning and the sun was positioned at an angle that made seeing any light gun signals close to impossible. On final approach we were considering our options because we were not cleared to land. Continuing to land without a landing clearance can create unwanted problems with the FAA, so we were getting ready to execute a go around. Finally tower was able to restore their radios and we received our clearance for a touch and go. Turns out there was a brief outage of power at the airport and the tower was in the process of setting up its backup generator electricity. We were able to breathe a sigh a relief.

If radio communication was not restored our plan was to assume radio failure. We would not be able to know if it was in fact our airplane or ATC radio failure unless we were able to communicate effectively with ATC on another frequency. Following the standard procedures for radio failure we would have squawked 7600, tuned in the emergency frequency of 121.5, and went around. The plan was to remain in the traffic pattern while transmitting on both 121.5 and blind transmissions on tower frequency 118.0 and monitor both simultaneously. While continuing to look for light gun signals the whole time in the pattern we would also maintain visual separation from any aircraft in the airspace by using see and avoid techniques. There was not an immediate problem with limited fuel, but if it got to the point of concern our decision was to fly just south of the Westheimer airspace to David Jay Perry airport. From there we would be able to use our cell phones and determine the cause of the problem.

After reflecting on the situation, my student and I realized that we potentially fell victim to one of the five hazardous attitudes that pilots can have—Invulnerability. We became so comfortable with flying the very well maintained aircraft that the University supplies for us that we subconsciously didn't think we would possibly encounter some type of problem or emergency. The brief loss of power was not anyone's fault but it opened our eyes to the reality that problems can occur at any time, and we must be prepared to handle them accordingly. Remember to AVIATE, NAVIGATE, And COMMUNICATE. This is not a time to panic or be flustered because you still have a flying airplane and positive control. You must follow the correct learned procedures, consider your options, and if you're flying with another pilot use effective CRM (crew resource management) to mitigate risks and make the best possible decision.

Refer to the AIM 4-2-13 Communications with Tower when Aircraft Transmitter or Receiver or Both are Inoperative

If operating under IFR, reference the article below about lost communications:

<http://www.avweb.com/news/sayagain/189785-1.html>